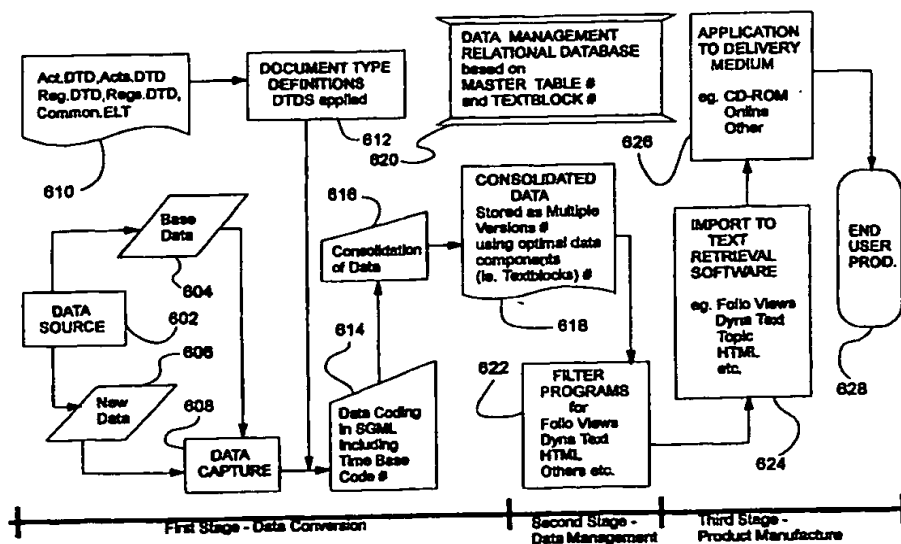




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(21) International Application Number: PCT/AU98/00050 (22) International Filing Date: 30 January 1998 (30.01.98) (30) Priority Data: PO 4892 31 January 1997 (31.01.97) AU (71) Applicant (for all designated States except US): TIME BASE PTY. LIMITED [AU/AU]; Level 7, 209 Castlereagh Street, Sydney, NSW 2000 (AU). (72) Inventors; and (75) Inventors/Applicants (for US only): SCHNELLE, Christoph [DE/AU]; 7 Hough Street, Bondi Junction, NSW 2022 (AU). LESSING, Abha [AU/AU]; 7 Hough Street, Bondi Junction, NSW 2022 (AU). MARIANI, Peter [AU/AU]; 6 Andro Place, Werrington, NSW 2747 (AU). (74) Agent: SPRUSON & FERGUSON; G.P.O. Box 3898, Sydney, NSW 2001 (AU).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published With international search report. <i>Front page and claims included.</i> <i>Sumbo 113pgs.</i>	

(54) Title: A SYSTEM FOR ELECTRONIC PUBLISHING



(57) Abstract

The present invention relates to a method, apparatus and system for publishing electronic information. The system includes a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means. For each predefined portion, each predefined portion is stored and, where such predefined portion has been modified, each such modified predefined portion is stored. Further, the system has a plurality of attributes. Each attribute is a point on an axis of a multidimensional space for organising the data. The plurality of predefined portions of the data may be encoded using Standard Generalised Markup Language (SGML) OR XML. Still further, the data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).

5 CLAIMS:

1. A system for publishing electronic information, comprising:
a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, said each predefined portion is stored and, where such predefined portion has been modified,
10 each such modified predefined portion is stored; and
a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said data.
2. The system according to claim 1 comprising means for searching within the system.
- 15 3. The system according to claim 2 wherein said searching means uses one or more attributes.
4. The system according to claim 2 or 3 wherein said searching means uses any predefined portion, any modification of a predefined portion, or any word or phrase within such predefined portion or such modification.
- 20 5. The system according to claim 1 further comprising means for searching at least one of said predefined portions of said data using said plurality of attributes, wherein said plurality of attributes are coupled to each of said predefined portions by said respective linking means, and for retrieving one or more of said predefined portions using said plurality of attributes to define a point in said
25 multidimensional space.
6. The system according to any one of claims 1 to 3 and 5, wherein said plurality of predefined portions of said data are encoded using Standard Generalised Markup Language (SGML) OR XML.
7. The system according to claim 6, wherein said data is encoded using
30 one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).
8. The system according to any one of claims 1 to 3 and 5, wherein said linking means comprises any piece of information additional to the body of the data.
9. The system according to claim 8, wherein said linking means is a code or markup that allows departure and destination points to be created between
35 portions of data.
10. The system according to any one of claims 1 to 3 and 5, wherein said at least one linking means comprises an identification code for said respective predefined portion.
11. The system according to any one of claims 1 to 3 and 5, wherein a
40 first database comprises said plurality of predefined portions of data.
12. The system according to claim 11, wherein a second database comprises said plurality of attributes for managing said first database.

5 13. The system according to any one of claims 1 to 3 and 5, wherein said predefined portions are encoded with one or more attributes.

 14. The system according to any one of claims 1 to 3 and 5, wherein said respective predefined portion is changed by performing one of the group consisting of adding at least one attribute to said respective predefined portion, deleting at least
10 one attribute from said respective predefined portion, and modifying at least one of the attributes of said respective predefined portion.

 15. The system according to any one of claims 1 to 3 and 5, wherein said respective predefined portion is changed by performing one of the group consisting of adding data to said respective predefined portion, deleting data from said
15 respective predefined portion, and modifying data of said respective predefined portion.

 16. The system according to any one of claims 1 to 3 and 5, wherein said data comprises legislation.

 17. The system according to claim 16, wherein each of said plurality of
20 predefined portions of data is a respective provision of said legislation.

 18. The system according to claim 17, wherein said provision is a section or schedule of an Act, or a regulation or schedule of a Regulation(s).

 19. The system according to any one of claims 1 to 3 and 5, wherein said system is implemented using a general purpose computer.

25 20. A recording medium for publishing electronic information, comprising:

 a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, said each predefined portion is stored and, where such predefined portion has been modified,
30 each such modified predefined portion is stored; and

 a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said data..

 21. The recording medium according to claim 20 wherein means for searching can be used to search the recording medium.

35 22. The recording medium according to claim 21 wherein said searching means uses one or more attributes.

 23. The recording medium according to claim 21 or 22 wherein said searching means uses any predefined portion, any modification of a predefined portion, or any word or phrase within such predefined portion or such modification.

40 24. The recording medium according to claim 20 further comprising means for searching at least one of said predefined portions of data uses said plurality of attributes, wherein said plurality of attributes are coupled to each of said

5 predefined portions by said respective linking means, and for retrieving one or more
of said predefined portions using said plurality of attributes to define a point in said
multidimensional space.

25. The recording medium according to any one of claims 20 to 22 and
24, wherein said plurality of predefined portions of said data are encoded using
10 Standard Generalised Markup Language (SGML) OR XML.

26. The recording medium according to claim 25, wherein said data is
encoded using one or more Document Type Definitions (DTD) or Style Sheet
Mechanisms (SSM).

27. The recording medium according to any one of claims 20 to 22 and
15 24, wherein said linking means comprises any piece of information additional to the
body of the data.

28. The recording medium according to claim 27, wherein said linking
means is a code or markup that allows departure and destination points to be created
between portions of data.

20 29. The recording medium according to any one of claims 20 to 22 and
24, wherein said at least one linking means comprises an identification code for said
respective predefined portion.

30. The recording medium according to any one of claims 20 to 22 and
24, wherein a first database comprises said plurality of predefined portions of data.

25 31. The recording medium according to claim 30, wherein a second
database comprises said plurality of attributes for managing said first database.

32. The recording medium according to any one of claims 20 to 22 and
24, wherein said predefined portions are encoded with one or more attributes.

33. The recording medium according to any one of claims 20 to 22 and
30 24, wherein said respective predefined portion is changed by performing one of the
group consisting of adding at least one attribute to said respective predefined
portion, deleting at least one attribute from said respective predefined portion, and
modifying at least one of the attributes of said respective predefined portion.

34. The recording medium according to any one of claims 20 to 22 and
35 24, wherein said respective predefined portion is changed by performing one of the
group consisting of adding data to said respective predefined portion, deleting data
from said respective predefined portion, and modifying data of said respective
predefined portion.

35. The recording medium according to any one of claims 20 to 22 and
40 24, wherein said data comprises legislation.

36. The recording medium according to claim 35, wherein each of said
plurality of predefined portions of data is a respective provision of said legislation.

5 37. The recording medium according to claim 36, wherein said provision is a section or schedule of an Act, or a regulation or schedule of a Regulation(s).

 38. The recording medium according to any one of claims 20 to 22 and 24, wherein said recording medium is implemented using a general purpose computer.

10 39. The recording medium according to any one of claims 20 to 22 and 24, wherein said recording medium is made from one of the group consisting of magnetic media, optical media, and magneto-optical media.

 40. A method for publishing electronic information, comprising the steps of:

15 providing a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, said each predefined portion is stored and, where such predefined portion has been modified, each such modified predefined portion is stored; and

 providing a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said data.

20 41. The method according to claim 40 comprising the step of searching said data.

 42. The method according to claim 41 wherein said searching step uses one or more attributes.

25 43. The method according to claim 41 or 42 wherein said searching step uses any predefined portion, any modification of a predefined portion, or any word or phrase within such predefined portion or such modification.

 44. The method according to claim 40 further comprising the step of searching at least one of said predefined portions of said data using said plurality of attributes, wherein said plurality of attributes are coupled to each of said predefined portions by said respective linking means, and for retrieving one or more of said predefined portions using said plurality of attributes to define a point in said multidimensional space.

30 45. The method according to any one of claims 40 to 42 and 44, wherein said plurality of predefined portions of said data are encoded using Standard Generalised Markup Language (SGML) OR XML.

 46. The method according to claim 45, wherein said data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).

40 47. The method according to any one of claims 40 to 42 and 44, wherein said linking means comprises any piece of information additional to the body of the data.

5 48. The method according to claim 47 wherein said linking means is a code or markup that allows departure and destination points to be created between portions of data.

 49. The method according to any one of claims 40 to 42 and 44, wherein said at least one linking means comprises an identification code for said respective
10 predefined portion.

 50. The method according to any one of claims 40 to 42 and 44, wherein a first database comprises said plurality of predefined portions of data.

 51. The method according to claim 50, wherein a second database comprises said plurality of attributes for managing said first database.

15 52. The method according to any one of claims 40 to 42 and 44, wherein said predefined portions are encoded with one or more attributes.

 53. The method according to any one of claims 40 to 42 and 44, wherein said respective predefined portion is changed by performing one of the group consisting of adding at least one attribute to said respective predefined portion,
20 deleting at least one attribute from said respective predefined portion, and modifying at least one of the attributes of said respective predefined portion.

 54. The method according to any one of claims 40 to 42 and 44, wherein said respective predefined portion is changed by performing one of the group consisting of adding data to said respective predefined portion, deleting data from
25 said respective predefined portion, and modifying data of said respective predefined portion.

 55. The method according to any one of claims 40 to 42 and 44, wherein said data comprises legislation.

30 56. The method according to claim 55, wherein each of said plurality of predefined portions of data is a respective provision of said legislation.

 57. The method according to claim 56, wherein said provision is a section or schedule of an Act, or a regulation or schedule of a Regulation(s).

 58. The method according to any one of claims 40 to 42 and 44, wherein said method is implemented using a general purpose computer.